### Rec'd PCT/PTO 18 APR 2005

### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



### 

#### (43) International Publication Date 15 July 2004 (15.07.2004)

### **PCT**

## (10) International Publication Number WO 2004/059005 A3

(51) International Patent Classification7:

\_\_\_\_

C12Q 1/68

(21) International Application Number:

PCT/GB2003/004794

- (22) International Filing Date: 29 October 2003 (29.10.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 60/421,765 29 October 2002 (29.10.2002) US 0230238.8 28 December 2002 (28.12.2002) GB
- (71) Applicant and
- (72) Inventor: FU, Guoliang [CN/GB]; 7 Blagrove Close, Didcot OX11 7JW (GB).
- (74) Agent: FRANK B. DEHN & Co.; 179 Queen Victoria Street, London EC4V 4EL (GB).

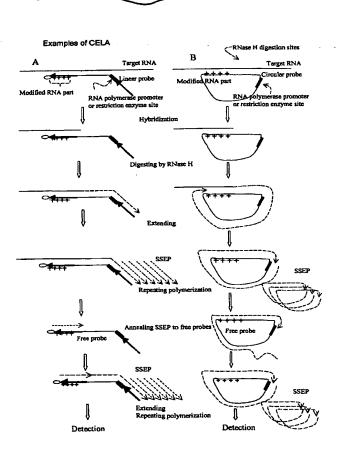
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

 as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

[Continued on next page]

### (54) Title: COMBINED EXPONENTIAL AND LINEAR AMPLIFICATION



(57) Abstract: Methods and compositions are provided for sensitive detection and quantitation of nucleic acids. Methods and compositions are further provided for genotyping. Probes of the invention allow target initiated amplification for single stranded, double stranded polynucleotides and pyrophosphate (PPi). DNA enzyme mediated detection method is also provided for detecting single stranded end products.

### WO 2004/059005 A3



### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 19 August 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.